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**CODSIA Case – 2021-001**

Sent via the Federal eRulemaking Portal: <http://www.regulations.gov>

April 28, 2021

Matthew D. Zolnowski  
Office of the Deputy Assistant Secretary of Defense for Industrial Policy  
The Pentagon  
Washington, DC

**Subject:** DoD–2021–OS–0022 - Request for Comments on Executive Order “America’s Supply Chains”

Dear Mr. Zolnowski,

On behalf of the members of the Council of Defense and Space Industry Associations (CODSIA), we are pleased to submit these comments in response to the Department of Defense’s (DoD’s) Notice of Request for Comments on Executive Order 14017 America’s Supply Chains.

Many of our member companies rely on strategic and critical materials to develop and manufacture the innovative end products that power United States national security. Additionally, virtually all our member companies rely upon products that contain these materials for their business activities. We support the Biden Administration’s efforts to ensure the security and resiliency of U.S. supply chains, including its request for Congress to invest \$50 billion in semiconductor manufacturing and research as called for in the Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Act. Semiconductors are foundational to technological innovation across the defense and aerospace industries, and in order for America to maintain its economic competitiveness and national security, these critical materials need to be supported by the government through appropriate incentives. Without this necessary support, there are serious risks that could impact the availability of vital, advanced technologies for our community moving forward.

Additionally, we strongly urge DoD officials to advocate for, and help develop, policies regarding strategic and critical materials supply chains that emphasize multilateralism and collaboration with U.S. allies and partners (especially in the Asia Pacific region and those with which the United States has reciprocal defense procurement agreements) and that leverage pre-existing standards and best practices<sup>1</sup>. We have strong concerns that without

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<sup>1</sup> CODSIA also recommends that the current list of critical minerals be expanded to include copper, silver, nickel, gold, zinc, molybdenum, and lead.

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due consideration and careful policy development, there could be negative unintended consequences that add significant compliance costs and resource burdens on companies; disrupting or dismantling legacy supply chains in order to achieve acceptable supply chain security may result in considerable up-front and sustainment costs, and U.S. Government policy development in this area must account for those potential effects.

Our responses to the prompts laid out in the Notice are as follows:

***Topic II. Diversifying sources of supply for strategic and critical materials, including domestic sources and foreign allies/partners.***

First, there are compelling economic reasons for diversification of sources of supply. On a macro level, full and open competition drives down prices in markets for products and services. Increasing diversification of sources of supply also reduces the likelihood of costly disruptions. On a micro level, companies face realities that make it impossible to change supply chains overnight. They must consider a variety of factors in making sourcing decisions.

The strategic and critical materials supply chain—comprised of research, design, advanced development, prototyping, manufacturing, assembly, test, packing, and distribution—is complex and global. Geographic diversification of sourcing of strategic and critical materials is critical to the global competitiveness of U.S. firms because it lowers costs, promotes efficiency and productivity, enables access to top global talent and growing customer bases, and mitigates supply chain risks. Companies often spend months, if not years, negotiating contracts with suppliers, planning manufacturing processes in line with rigorous quality controls, packaging and testing product security and efficiency, and providing customized services to clients around the world. We urge consideration of these factors and other realities in business practices regarding sourcing options and efforts to ensure that industry engagement is prioritized throughout the review process.

Second, engaging international partners, including our closest allies, on supply chain issues provides an opportunity to both strengthen diplomatic ties and diversify supply chains. The United States should work with partners and allies (e.g., European Union, Japan, South Korea, Taiwan, others in the Asia Pacific and Latin America regions) to minimize damaging interruptions to, and ensure the stability of, critical materials supply chains. Such efforts could include the convening of formal supply chain reviews with allies and partners and building upon existing efforts to reduce market access barriers that may impede the efficiency and resiliency of global supply chains. Engagement with allies and partners should focus on creating a trusted environment in which firms can carefully calibrate supply chains, improve global supply chain security and transparency, minimize

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time-to-market, and account for other considerations that enable them to remain globally competitive, while recognizing and accounting for the complexity, interconnectedness, and significant investment required to operate critical materials supply chains. CODSIA strongly encourages DoD to keep these global competitiveness considerations in mind and coordinate policies and strategic objectives with foreign governments to ensure the stability of the critical materials supply chain.

In general, CODSIA supports increased bilateral, regional, and multilateral engagement between the United States and allied/partner economies in a manner that promotes technology sector-specific dialogues, increases digital trade partnerships, enhances international regulatory compatibility, and reduces overall barriers to trade. In summary, DoD and other Administration officials should carefully consider industry linkages, including robust industry engagement where appropriate, to support a thorough examination of potential policy options by engaging industry associations periodically for input.

Additional diversification of supply chains outside of Asia is also imperative. In the case of semiconductors, diversifying supply will require increased reshoring of manufacturing capabilities. According to the Semiconductor Industry Association, today 75% of semiconductor manufacturing is based in Asia, with large hubs in South Korea, Taiwan, Japan, China, and Singapore, with only 12% of capacity remaining in the U.S. This situation has created a dangerously high risk for DoD. The CHIPS for America Act supports the mission of the DoD by ensuring that DoD has adequate, reliable domestic supply of advanced semiconductors.

Moreover, the U.S. must create more robust reverse supply chains to accommodate circular economies through better governance around electronics recycling, reverse logistics support, and economic incentives to encourage reclamation of rare materials in existing products. Not only are many of the reserves for certain materials nearly depleted, but circular economy considerations are at the forefront of U.S. allies' policy, such as the European Union. Reverse supply chains will also involve bilateral agreements between nations. Reclamation of materials also helps mitigate supply chain sourcing threats from non-U.S. allies.

***Topic IV. Promoting environmental, health and safety, labor, fair trade, and a level playing field in global markets.***

In general, companies leverage diversified production and supply chains to improve resiliency in adverse environments. Companies with diversified supply chains can absorb external shocks to their supply chain more easily and can maintain production and shipment deadlines. However, the sourcing of critical materials is exposed to specific risks

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which affect the availability of downstream uses. Supply chains for end products that rely on critical materials require unique and specialized resources to operate at a capacity that meets the national security requirements and consumer demand around the world. In some cases, where the U.S. has domestic production to meet national security issues, it is critical that the government provide proper incentives to support production (e.g., uranium conversion).

Availability and cost of essential resources such as electricity and water can significantly impact production. Energy grids across the U.S. and around the world are increasingly vulnerable to severe weather events caused by climate change. Any disruption to the production of goods using critical materials may cause delays or shortages in their supply. Similarly, critical material supply chains have been vulnerable to the current health crisis. At the beginning of the COVID-19 pandemic, governments around the world closed borders, implemented quarantines, suspended non-essential activities, and imposed restrictions on movement. This caused several supply chain disruptions and supply/demand imbalances that are continuing to contribute to significant supply shortages around the world, including for allied and partner governments. Thus, to mitigate the potential for future market distortions caused by supply disruptions or shortages, CODSIA encourages DoD and Administration officials to work with allied and partner governments to strengthen, and mitigate risks to, global supply chain resilience.

Within the U.S. Government, DoD and its interagency partners should leverage existing standards and best practices rather than impose potential burdensome requirements on industry. Many companies voluntarily participate in groups like the Responsible Business Alliance that support communities impacted by the global supply chain through industry standards that promote responsible behavior for issues like environmental impact, forced labor, and chemical management. DoD should also leverage current minerals sourcing initiatives that set up sector-wide protocols and assurance tools to maintain safe and responsible mining and refining operations across the technology sector and wider.

***Topic VIII. The availability of skilled labor and other personnel to sustain a competitive strategic and critical materials ecosystem, including the domestic education and manufacturing workforce skills.***

Production of end products derived from critical materials requires workers with highly specialized skills. More broadly speaking, developing advanced manufacturing capabilities across the industrial base is essential to sustaining competitive advantages across a wider ecosystem of products. Advanced manufacturing also relies upon the integration of emerging technologies, such as artificial intelligence, into various elements of the production process. Notwithstanding advances in technology and automation, the United States will continue to rely on a robust, highly trained, and skilled domestic workforce. The

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United States must, therefore, prioritize building and maintaining its domestic workforce by ensuring a steady talent pool with the necessary advanced manufacturing skills needed to meet future demand. Policymakers should support significant funding for science, technology, engineering, and mathematics (STEM) and computer science education, including technical training and new advanced hardware for teachers, expanded access to high-quality instructional materials and rigorous STEM and computer science coursework for students from underserved communities, hands-on practical experience for students, and effective regional partnerships.

DoD should also support solutions that allow companies to address their labor shortages today. Foreign talent is essential to the U.S. technology industry and policymakers should support immigration reform that successfully meets the demands of a globally competitive, digital economy by updating the H-1B visa program. More broadly, the Administration should support reforms that ensure that the number of available H-1B visas adjusts to meet market demands, promote additional protections for nonimmigrant employees such as H-1B portability; provide funding for domestic STEM education and training programs, and support the H-4 visa program.

Furthermore, DoD and Administration officials should advance legislative proposals that reform the employment-based visa program. Such proposals increase the overall number of employment-based immigrant visas available for applicants (as well as their dependents) such as through the recapture of unused green cards to help reduce application backlogs. Additional reforms could include eliminating arbitrary per-country caps through legislation and exempting STEM university graduates with advanced degrees from additional employment-based visa numerical limitations. In particular, we recommend an expansion of the H-2B visa program to become more compatible with industry's needs; this program needs relief from the current statutory cap by exempting current workers who have followed the law from counting against the limit.

***Topic XI. The spectrum of risk to the development and maintenance of sustainable supply chains, such as violations of human rights and forced labor.***

Forced labor, trafficking, and modern slavery are human rights abuses that are difficult to eradicate from global supply chains. As evidenced by a recently published U.S. Bureau of International Labor Affairs list of goods produced by child labor or forced labor, the risk of forced labor in global supply chains remains tragically high. CODSIA recommends that the Administration expand existing diplomatic efforts, maintain U.S. leadership on sourcing transparency, and promote legislation that improves progress in the listed regions.

The United States should expand existing diplomatic efforts to drive peace, security, and governance. This should include continued support for the United Nations Stabilization

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Missions, for the Public-Private Alliance for Responsible Minerals Trade, and for related regional governance and transparency initiatives. Furthermore, the United States should maintain leadership in combating the issue, set a strong signal to global markets about the need to cease human rights abuses, and make a strong commitment to ethical sourcing throughout supply chains with voluntary participation from industry rather than new reporting requirements. DoD should also leverage pre-existing multi-industry and multi-stakeholder initiatives focused on protecting the rights of workers who are vulnerable to forced labor in global supply chains.

Finally, CODSIA recommends DoD provide incentives to companies that responsibly source from global supply chains. These efforts could include providing contracting preferences and/or public recognition to those companies that source through approved, in-region programs. The United States and other governments can also support in-region transparency and governance initiatives and place collective pressure on foreign smelters to participate in audit programs. Support for the development of reverse supply chains to reclaim material at end of life will help mitigate labor-related issues like those described in this section.

***Topic XIII.** Policy recommendations or suggested executive, legislative, regulatory action to foster more resilient supply chains for strategic and critical materials while promoting stewardship of affected communities and the environment.*

CODSIA supports robust funding of \$50 billion to implement the CHIPS for America Act, enacted in the National Defense Authorization Act for Fiscal Year 2021. In particular, this law requires DoD to establish a program to incentivize the formation of consortia of companies to ensure the development and production of measurably secure microelectronics, including integrated circuits, logic devices, memory, and the packaging and testing practices that support these microelectronic components by DoD, the intelligence community, critical infrastructure sectors, and other national security applications. In addition, the law allows DoD to establish a National Network for Microelectronics R&D to enable cost effective exploration of new materials, devices, and architectures, and prototyping in domestic facilities to safeguard domestic intellectual property, and to accelerate the transition of new technologies to domestic microelectronics manufacturers. The DoD must implement these critical programs as soon as possible to ensure U.S. economic and national security.

CODSIA also strongly supports the responsible use and sourcing of strategic and critical materials. Many of our member companies have demonstrated their commitment to pursuing these policy and business goals by participating in multi-stakeholder groups. We encourage DoD to consider further actions that would incentivize **participation in** responsible sourcing initiatives, as well as maintaining a voluntary reporting mechanism for sharing traceability, environmental, and labor information with the Federal government.

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Mandatory reporting requirements are unnecessary and would create significant administrative burdens on government contractors. DoD would be better served by adopting contracting incentives (e.g., price preferences and inclusion in Qualified Bidders Lists) to promote voluntary reporting and information sharing.

The United States should also incentivize the circular economy, as a way to enhance both our economic growth and our environmental sustainability. Meeting industry goals in that space will require the creation of a robust industry to convert the returned products into new ones, extracting rare earth elements and other components so that they can be reused or recycled. That circular industry does not exist at scale in the United States, but incentivizing innovation in this area could be a game changer in creating a forward-looking manufacturing sector in America.

***Topic XIV. Recommendations for long term research, development, and demonstration (RD&D) investments necessary for reimagining a more sustainable and secure U.S. critical materials supply chain of the future.***

Evaluate current stockpiles of U.S. critical materials and determine if more investment should be made as an insurance policy against potential major supply chain shocks. Stockpiling resources can provide a buffer against major supply shocks in the short run potentially brought on by a variety of factors, including natural disasters and foreign efforts to cut off supplies. Furthermore, stockpiling reserves provides disincentives for irresponsible oligopolistic behavior in commodities by providing tools for the U.S. government to alleviate market conditions and keep prices stable. However, stockpiles alone cannot address longer term or enduring supply shocks. It can only be a bridge to a more sustainable supply chain.

Invest in supply chain illumination. By supporting efforts to monitor and potentially influence the evolution of supply chains, their pressure points, and associated critical materials dependencies, DoD could gain valuable insight into key market dynamics that would benefit decisions in the mid- to longer-term.

Encourage greater investments in the U.S. critical materials supply chain ecosystem through tax policy. CODSIA supports investment tax credits (ITCs) as a critical tool to immediately and measurably incentivize building new and modernizing existing critical materials supply chains in the United States. Making this credit available to any company investing in the United States could create significant opportunities to increase domestic investment and returns on investment.

Support critical materials R&D through innovation-forward economic policies. Domestic supply chain policies that inadvertently decrease companies' global sales eliminate a

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major funding stream for companies' foundational R&D activities. For instance, the majority of demand for U.S. semiconductors is outside the United States. Approximately 80 percent of U.S. industry revenues come from sales to export markets, making semiconductors one of the nation's top exports. The ability for U.S. innovators and manufacturers to not only participate in but also hold leading positions in the global marketplace is key to facilitating the cycle of private-sector R&D investments, and this leadership is significantly supported by revenues from sales to a diverse customer base in overseas markets. CODSIA encourages DoD to pursue policies that open markets and minimize burdens on companies' overseas sales to ensure continued robust R&D funding and market leadership.

Facilitate R&D efforts through cooperative programs. Science and technology are key to addressing concerns about the reliability and adequacy of critical materials. There is a need for deeper understanding and broader knowledge of critical material resources, availability, and substitutes. This should include exploring options for increasing supply of strategic and critical materials both domestically and in allied countries. The Administration plays a critical role in ensuring funding for basic scientific research that can contribute to the knowledge base for the critical material supply chain. CODSIA recommends that DoD and the federal government as a whole better focus its R&D priorities by leveraging existing products like the International Electronics Manufacturing Initiative (iNEMi) roadmap<sup>2</sup>, which provides a 10-year outlook for electronics manufacturing and identifies technology gaps therein.

CODSIA was formed in 1964 by industry associations with common interests in federal procurement policy issues at the suggestion of the Department of Defense. CODSIA consists of eight associations – Aerospace Industries Association (AIA), American Council of Engineering Companies (ACEC), Associated General Contractors (AGC), Computing Technology Industry Association (CompTIA), Information Technology Industry Council (ITI), National Defense Industrial Association (NDIA), Professional Services Council (PSC), and U.S. Chamber of Commerce. CODSIA's member associations represent thousands of small and large government contractors nationwide. As such, this comment represents thousands of inputs, not just a single comment by a single commentor. The Council acts as an institutional focal point for coordination of its members' positions regarding policies, regulations, directives, and procedures that affect them. A decision by any member association to abstain from participation in a particular case is not necessarily an indication of dissent.

Thank you for your attention to these comments. We welcome the opportunity to address them with your drafting team at your convenience. If you have any questions or need any

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<sup>2</sup> <https://www.inemi.org/inemi-roadmap>



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additional information, please contact CODSIA's lead on these comments, Kelsey Kober, Manager of Policy, Public Sector, Information Technology Industry Council. Kelsey can be reached at 202-570-1177 or [kkober@itic.org](mailto:kkober@itic.org).

Sincerely,



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